

23jun04 07:47:40 User259284 Session D2813.8

File 155:MEDLINE(R) 1966-2004/Jun W2  
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Set	Items	Description
S1	141984	'MAGNETIC RESONANCE IMAGING' OR 'FMRI' OR R18:R21 OR MRI OR MAGNETIC() RESONANCE() IMAGING???
S2	4109	'AIR CONDITIONING' OR 'ENVIRONMENT, CONTROLLED'
S3	3	1AND2

File 8:EI Compendex(R) 1970-2004/Jun W2  
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Set	Items	Description
S1	30347	R1:R2 OR MRI OR R7:R8
S2	30819	'AIR CONDITIONING' OR 'CLIMATE CONTROL' OR R6:R9 OR R14 OR R16 OR R25 OR HVAC OR AIR(2N)CONDITION?????
S3	25	PATIENT??(5N)COOL?????
S4	61172	S1:S3
S5	172	S4 AND VANE??
S6	2065	S4 AND COMFORT???????
S7	1107	S4 AND (CIRCULAT????? OR RECIRCULAT???????)
S8	54	S4 AND (AIRFEED????? OR FEED????(2N)AIR)
S9	96	S1 AND (S3 OR S5:S8)
S10	1	S9 AND VANE??
S11	3	S9 AND ROTAT?????
S12	0	S9 AND MOTOR??
S13	7	S9 AND (INTERFER????????? OR NOIS????? OR EMI)
S14	17	1AND2
S15	1	S14 AND (INTERFER????????? OR NOIS????? OR EMI)

23jun04 07:57:33 User259284 Session D2813.10

SYSTEM:OS - DIALOG OneSearch  
File 34:SciSearch(R) Cited Ref Sci 1990-2004/Jun W2  
(c) 2004 Inst for Sci Info  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info

Set	Items	Description
S1	3	CR='BELL C, 1996, V12, P71, J CLIN MONITOR'

File 2:INSPEC 1969-2004/Jun W2  
(c) 2004 Institution of Electrical Engineers

Set	Items	Description
S1	226966	R1:R5 OR R11 OR R13 OR R15 OR R19 OR R20:R21 OR AIR(2N)CON- DITION???????
S2	339658	R1:R8 OR R10 OR R13 OR R16 OR EMI
S3	7050	1AND2
S4	19244	R1:R3 OR R6:R8 OR MRI OR (NMR OR MR)()IMAG????? OR MAGNETIC- ()RESONANCE()IMAG???
S5	28	3AND4
S6	3	S5 AND PATIENT??
S7	0	S5 AND COMFORT???????
S8	1	S5 AND COOL???????????
S9	3	S4 AND AIR()CONDITION???????

23jun04 08:04:56 User259284 Session D2813.12

*NPC STIC*  
*Search*  
*June 23rd 2004*  
*See attached Search History*  
*Patchwork & Reels*  
*Part 1*  
*Ex. Tiffany Fetzner*

File 20:Dialog Global Reporter 1997-2004/Jun 23  
(c) 2004 The Dialog Corp.

Set	Items	Description
S1	2	(MRI OR NMR OR MAGNETIC() RESONANCE() IMAG????) (6N) (AIR(6N) C- ONDITION????????)
S2	52	(MRI OR NMR OR MAGNETIC() RESONANCE() IMAG????) (6N) AIR
S3	7	(MRI OR NMR OR MAGNETIC() RESONANCE() IMAG????) (6N) VENTILAT?
S4	910	PATIENT??(6N) VENTILAT?
S5	1229	PATIENT??(6N) AIR
S6	0	NONELECTRIC?() MOTOR??
S7	557	(FLUID OR WATER OR AIR OR GAS) () DRIVEN
S8	5	(FLUID OR WATER OR AIR OR GAS) () DRIVEN() MOTOR
S9	27	(NONMETALLIC OR NON() METALLIC OR CERAMIC OR PLASTIC) () MOTOR
S10	245	IMAGING() (SPACE OR COMPARTMENT OR CAVITY OR ENCLOSURE OR A- REA OR ZONE OR REGION)
S11	4496	PATIENT??(3N) (SPACE OR COMPARTMENT OR CAVITY OR ENCLOSURE - OR AREA OR ZONE OR REGION)
S12	3	NON() ELECTRIC?() MOTOR??
S13	587	S7:S9 OR S12
S14	3	(S1:S5 OR S10:S11) AND S13
S15	3	RD S14 (unique items)
S16	684	ATEC OR SUROS() SURGICAL????????
S17	0	CO=SUROS SURG?
S18	0	CO=SUROS?
S19	2	S1:S13 AND S16
S20	0	S19 NOT S15
S21	18	ATEC AND (SUROS OR CO=SUROS? OR CS=SUROS?)
S22	17	RD S21 (unique items)
S23	15	S22 NOT S15
S24	15	S23 AND (MRI OR NMR OR MR OR MAGNETIC() RESONANCE OR IMAGIN- G)
S25	786	PATIENT??(4N) AIR
S26	3346	(MRI OR NMR OR MAGNETIC() RESONANCE OR IMAGING) (6N) PATIENT??
S27	4	25AND26
S28	4	RD S27 (unique items)
S29	2120	PATIENT??(6N) (AIR OR VENTILAT????????)
S30	12	26AND29
S31	8	S30 NOT S27
S32	8	RD S31 (unique items)

23jun04 07:30:02 User259284 Session D2813.2

SYSTEM:OS - DIALOG OneSearch

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200439

(c) 2004 Thomson Derwent

\*File 350: For more current information, include File 331 in your search.  
Enter HELP NEWS 331 for details.

File 347:JAPIO Nov 1976-2004/Feb(Updated 040607)

(c) 2004 JPO & JAPIO

S1 1 PN='US 20020135370'

? b 342;s ct=(us 3983715 or br 7600743 or ca 1030761 or il 48875 or jp 51104740 or za 7600139)  
23jun04 07:34:43 User259284 Session D2813.6

File 342:Derwent Patents Citation Indx 1978-04/200436  
(c) 2004 Thomson Derwent

Set	Items	Description
	14	CT=US 3983715
	0	CT=BR 7600743
	0	CT=CA 1030761
	0	CT=IL 48875
	0	CT=JP 51104740
	0	CT=ZA 7600139
S1	14	CT=(US 3983715 OR BR 7600743 OR CA 1030761 OR IL 48875 OR JP 51104740 OR ZA 7600139)

? map pn t

5 Select Statement(s), 48 Search Term(s)  
Serial#TD258

1 SearchSaves, 48 Search Term(s)  
? b 350 347 344;ex

SYSTEM:OS - DIALOG OneSearch

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200439

(c) 2004 Thomson Derwent

\*File 350: For more current information, include File 331 in your search.  
Enter HELP NEWS 331 for details.

File 347:JAPIO Nov 1976-2004/Feb(Updated 040607)

(c) 2004 JPO & JAPIO

\*File 347: JAPIO data problems with year 2000 records are now fixed.  
Alerts have been run. See HELP NEWS 347 for details.

File 344:Chinese Patents Abs Aug 1985-2004/May

(c) 2004 European Patent Office

Set	Items	Description
S1	22	S1:S4
S2	1	S1 AND IC=G01V?
S3	4	S1 AND IC=A61B?
S4	17	S1 AND (FAN????? OR BLOW????? OR AIR OR VENTILAT??????? OR AIRFEED?)
S5	1	S4 AND VANE??
S6	6	S4 AND ROTAT????????
S7	10	S4 AND COOL??????
S8	13	S4 AND AIR(2N)CONDITION?????
S9	2	S4 AND (CIRCULAT????? OR RECIRCULAT???????)
S10	6	S4 AND PUMP???????
S11	0	S4 AND HVAC
S12	12	S2:S3 OR S5:S6 OR S9:S10

*NPC Search*

*Jun 23rd 2004*

*Part II*

*Excluded February*

S13 9 S4 AND S7()S8  
 S14 5 12AND13  
 S15 4 S2:S3 NOT S14  
 S16 1 S5 NOT S14  
 S17 10 S2:S13 NOT (S14:S16)  
 S18 5949 (AIR(2N)CONDITION????? OR COOL???? OR DEHUMIDIF?????? OR H-  
 UMIDI??????????) (6N) (PATIENT? ? OR COMFORT????? OR HUMAN?? OR  
 PERSON??)  
 S19 5949 (PATIENT? ? OR COMFORT????? OR HUMAN?? OR PERSON??) (6N) (AI-  
 R(2N)CONDITION????? OR COOL???? OR DEHUMIDIF?????? OR HUMIDI?-  
 ??????????)  
 S20 9 S18:S19 AND (MRI OR NMR OR MAGNETIC()RESONANCE OR NUCLEAR(-  
 )MAGNETIC)

3/9/3

DIALOG(R) File 155:MEDLINE(R)

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07594848 PMID: 10301974

Planning for **magnetic resonance imaging** units.

Seelye A

New Zealand hospital (NEW ZEALAND) Jul 1987, 39 (5) p12-4, ISSN

0111-4042 Journal Code: 7613464

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: Health Administration

Descriptors: Hospital Departments; \*Hospital Design and Construction; \*

**Magnetic Resonance Imaging**--instrumentation--IS;

\*Radiology Department, Hospital; **Environment, Controlled**; New Zealand

; Planning Techniques

Record Date Created: 19871216

Record Date Completed: 19871216

N/A TRAF 6/28/2004

9/9/2

DIALOG(R)File 2:INSPEC

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5303186 INSPEC Abstract Number: A9615-8760I-003, B9608-7510B-048

**Title: Case study-MRI facility in hospital environment**

Author(s): Sathyanarayanan, A.; Aggrwal, A.; Chand, S.

Author Affiliation: Electron. Regional Test Lab., New Delhi, India

Conference Title: 1995 International Conference on Electromagnetic Interference and Compatibility (INCEMIC). Conference Proceedings (IEEE Cat. No.95TH8121) p.273-9

Publisher: Soc. EMC Eng, Madras, India

**Publication Date: 1995 Country of Publication: India 497 pp.**

ISBN: 0 7803 3229 6 Material Identity Number: XX96-00423

Conference Title: 1995 International Conference on Electromagnetic Interference and Compatibility (INCEMIC)

Conference Date: 6-8 Dec. 1995 Conference Location: Madras, India

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Hospitals are equipped with the latest medical electronics to diagnose and perform complicated surgery. To fulfill the above, hospitals are equipped with various general utilities like **air conditioning** plants, DG sets, elevators, electrical power tools for maintenance, communication sets etc. These facilities are prone to create electromagnetic interference (EMI) which may affect the operation of sophisticated diagnostic tools. In addition, systems like **MRI** and X-rays can emit harmful EM and X-rays to inflict severe effects on an operator who performs duties continuously near the system. To install such facilities in hospital electromagnetic environments, a chamber with a good shielding capability with an attenuation of 80 dB or more is essential for the operation of the system. This paper outlines the need for such a shielded chamber for an **MRI** facility in the hospital EM environment and tests experience encountered while testing for the shielding effectiveness of the chamber. The test setup used in the measurement, problems observed and necessary corrective measures are discussed. (0 Refs)

Subfile: A B

Descriptors: biomedical equipment; biomedical NMR; electromagnetic interference; electromagnetic shielding

Identifiers: **MRI** facility; hospital environment; electromagnetic

N/A TAFE  
6/23/2004

15/9/1

DIALOG(R)File 8:EI Compendex(R)

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04550094 E.I. No: EIP96110409199

**Title: Monitoring oxygenation and ventilation during magnetic resonance imaging: A pictorial essay**

Author: Bell, Charlotte; Conte, Antonio Hernandez

Corporate Source: Yale Univ Sch of Medicine, New Haven, CT, USA

Source: Journal of Clinical Monitoring v 12 n 1 Jan 1996. p 71-74

**Publication Year: 1996**

CODEN: JCMOEH ISSN: 0748-1977

Language: English

Document Type: JA; (Journal Article) Treatment: G; (General Review)

Journal Announcement: 9701W1

Abstract: Anesthetic equipment and monitoring devices are affected by the energy that results during magnetic resonance (MR) scanning. Parts of the anesthesia equipment can function like an antenna, **interfering** with radiofrequency and degrading the image. Therefore, all devices used in the MR suite must function normally within the suite and must pose no danger to the patient or to personnel, without affecting image quality. Several modalities are presented to ensure the reliability of oxygenation and **ventilation** during anesthesia or sedation. These include pulse oximetry, calorimetric carbon dioxide, remote monitoring, and shielded monitors. 8 Refs.

Descriptors: Patient monitoring; Anesthesiology; Biomedical equipment; **Magnetic resonance imaging**; Magnetic field effects; Signal **interference**; Medical imaging; Image quality; Health risks

NA/  
TAP 6-23-2004

15/9/1  
DIALOG(R)File 20:Dialog Global Reporter  
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29208403 (THIS IS THE FULLTEXT)  
Multimedia News Release: Patients at High-Risk of Breast Cancer Can Finally  
Have Quick MRI-Guided Biopsy  
PR NEWSWIRE (US)  
**May 19, 2003**  
JOURNAL CODE: WPRU LANGUAGE: English RECORD TYPE: FULLTEXT  
WORD COUNT: 941

INDIANAPOLIS, May 19 /PRNewswire/ -- Women classified at high-risk for breast cancer now have the chance to find the smallest breast abnormality at the earliest possible stage of development and have it biopsied in 30 minutes without ever leaving the magnet resonance imaging (MRI) suite and without undergoing surgery for a diagnosis. The year-old ATEC(TM) breast biopsy system has adapted its clinically advanced technology to become the first and only vacuum assisted breast biopsy device on the market capable of use under MRI -- a diagnostic biopsy option physicians in leading cancer centers across the country say they've been waiting to acquire for more than a decade.

To view the Multimedia News Release, complete with audio, video, and Hi-Res images, go to: <http://www.prnewswire.com/mnr/surossurgical/10731/>

This is a much-needed, long-awaited technology," said Dr. Elizabeth DePeri, radiologist and division director of Breast Imaging at Mayo Clinic in Jacksonville, Fla. "We've had patients calling monthly and asking, 'Do you have it yet, do you have it yet?' We've all been waiting for this for a very long time and we're finally able to provide MRI-guided breast biopsy for our patients."

A 43-year old multiple biopsy patient from northeast Florida admitted that the availability of MRI-guided breast biopsy with the ATEC(TM) helped her avoid bilateral mastectomy. "I've had so many masses and more than a dozen needle biopsies and surgical biopsies since I was 29 years old," the patient said. "When I was told I had more suspicious areas and would need another surgical procedure, I was considering bilateral mastectomy. Because of this technology, we could take out the mass in a less traumatic way. Having the option of MRI-guided breast biopsy with the ATEC(TM) is what talked me out of the mastectomy. For me, this is a huge advantage."

Dr. Valerie Jackson, immediate past president of the American College of Radiology and interim chairman of Radiology at Indiana University School of Medicine, said she sees the technology as a great advancement for women's health. "This is the last piece of the puzzle that we've needed to be able to serve most women," she said.

The ATEC(TM) system has gained wide initial acceptance in its use with MRI -- 10 institutions and breast centers are already using the system for MRI-guided vacuum assisted breast biopsy, including Indiana University Medical Center in Indianapolis, Lynn Sage Breast Center in Chicago, Mayo Clinic- Jacksonville, Memorial Sloan-Kettering Cancer Center in New York, Seattle Cancer Care Alliance at the University of Washington Medical Center in Seattle, and the University of Pennsylvania Medical Center in Philadelphia.

The system performs effectively under MRI because it is pneumatically powered, or **air-driven**, making it usable in the presence of the magnetic imaging field. More than 5,300 centers in the U.S. currently perform MRI; 1,150 perform breast MRI. It has been reported that the rate of breast MRI scanning doubles every year, but until now, there has been no effective or economic biopsy option.

"For a high-risk population, the ATEC(TM) device really lets you do something about what you see on MRI," said Dr. Zeeshan Shah, associate professor of radiology at Indiana University School of Medicine. "It's a quick procedure, and that's not an option we've had in the past."

"Every patient that we've done this procedure on is amazed by how quick and how easy the biopsy was," added Dr. Shah. Tissue samples can be acquired every 3.5 seconds with the ATEC(TM) -- 10 times faster than with other vacuum assisted breast biopsy systems. Physicians using the ATEC(TM) say it's faster, safer and easier to use, and it offers patients a

N/A TAF  
6/24/2004



painless, non-surgical biopsy option that leaves no scarring.

Benefiting most from this advanced technology is women with a family or personal history of breast cancer, those who have undergone previous breast surgery, and women with dense breast tissue who cannot get accurate screenings with other imaging technology such as ultrasound or mammography. This high-risk population is often evaluated with MRI to detect suspicious lesions or breast cancer at the earliest possible stage. MRI-guided breast biopsy using the ATEC(TM) has proven to be as reliable as open surgery for acquiring tissue samples that offer definitive pathological results.

"We tried to get the lump before under ultrasound, but it couldn't be done," said 80-year-old Mary Acker from Jacksonville, Fla. "I was reassured that we were going to use the MRI and the ATEC(TM) system to get the tissue out and find out whether it was benign or malignant. I would certainly choose this over surgery."

This year, an estimated 1.4 million women will have a breast biopsy. It is still unknown just what impact the ATEC(TM) will have on lowering breast cancer mortality rates due to early diagnosis of breast cancer, but physicians are confident that the system will make a difference.

"We've established in the practice of breast care that early detection saves lives, and we're detecting lesions with breast MRI that were not seen on ultrasound or mammography," said Dr. Shah. "Because of that and because of the ability to biopsy them with the ATEC(TM) device, I think we are following the maxim and the dictum of early detection saves lives, and I think we will save lives."

ATEC(TM) manufacturer Suros Surgical Systems, Inc. is an award winning Indiana-based medical device manufacturer setting new industry standards for minimally invasive methods of tissue excision and biopsy within multiple surgical specialties. Our patented surgical platform technology allows us to remove tissue or biopsy samples in the most compassionate, effective and efficient manner possible. Video: <http://www.prnewswire.com/mnr/surossurgical/10731/> Suros Surgical Systems, Inc.

CONTACT: Sue Hetzler of Suros Surgical Systems, Inc., +1-317-402-8690, (mobile), or [shetzler@surossurgical.com](mailto:shetzler@surossurgical.com)

Web site: <http://www.surossurgical.com/>

DESCRIPTORS: General News; Health & Healthcare

COUNTRY NAMES/CODES: United States of America (US)

REGIONS: Americas; North America

PROVINCE/STATE: Indiana

SIC CODES/DESCRIPTIONS: 8010 (Offices & Clinics of Medical Doctors); 8000 (Health Services)

NAICS CODES/DESCRIPTIONS: 621 (Ambulatory Health Care Services); 62 (Health Care & Social Assistance); 62111 (Offices of Physicians); 621111 (Offices of Physicians exc Mental Health)

24/9/15  
DIALOG(R)File 20:Dialog Global Reporter  
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21548947 (THIS IS THE FULLTEXT)

**Suros** Launches New Patented, FDA-Cleared **ATEC(TM)** Breast Biopsy

System

PR NEWSWIRE

March 04, 2002

JOURNAL CODE: WPRW LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 707

A new breast biopsy device that removes abnormal tissue faster, safer and easier than available market choices is a major clinical advancement in the arena of minimally invasive breast procedures and "a clear improvement" from current biopsy techniques. Developers say the device will significantly lower the number of unnecessary open surgical procedures in diagnosing breast disease, giving women a better and more preferred choice over the scalpel.

The **ATEC (TM)** system (Automated Tissue Excision and Collection) is FDA-cleared and patented by **Suros** Surgical Systems, Inc. in Indianapolis. It has been used by both surgeons and radiologists during the past year with impressive results.

What physicians have been most impressed with are the speed of the **ATEC (TM)** device and its ease of operation," said Dr. Timothy Goedde, medical director for **Suros**, surgical oncologist and instructor at the American College of Surgeons. "With the **ATEC(TM)** product, we can literally remove an entire abnormality in a matter of minutes without open surgery, without pain and morbidity to the patient and without compromising the probability of a better diagnosis in pathology. It's easy for physicians, easy for patients, more efficient and more effective."

The **ATEC (TM)** system is the first and only fully automated, light-weight, disposable hand piece that can take 16 biopsies per minute -- or one every 3.5 seconds. The device uses a small 9 or 12 gauge needle diameter while collecting a significant tissue sample. It is the only breast biopsy device on the market compatible with ultrasound, stereotactic and **MRI** technologies -- all done under local anesthesia and in the convenience of a doctor's office or breast center.

Physicians say it's revolutionary in minimally invasive biopsy procedures; patients like the idea of walking out of the doctor's office in less than 30 minutes with only a Band-aid on the puncture site.

"I had two surgical biopsy procedures in the last 20 years that were very painful and traumatic, taking hours to complete and recover from," said Sabrina Gibson, Indianapolis patient of Dr. Goedde's. "I was very skeptical and reluctant to have another procedure done based on my past experience, but this time I had no pain, no medications after the procedure ... just a Band-aid. I'd do it again in a minute."

The **ATEC (TM)** device is air-powered and operates with a simple push of a foot pedal, allowing physicians to give full attention to the patient and biopsy procedure. The system is the only completely closed breast biopsy system on the market, minimizing blood exposure and handling of individual core tissue samples. The combination of its unique features makes the device more economical for physicians and reimbursement for the procedure is already established.

"We have an extremely innovative product that the market needs and is responding to very well," said Jim Pearson, **Suros** president and CEO. "We're ready to make the **ATEC(TM)** system available to physicians in every state and take the fear out of breast biopsy procedures for the thousands of women who undergo invasive, scalpel-based diagnostic procedures every year."

Atlanta Breast Care Specialist and surgical oncologist Dr. Elizabeth Steinhaus has used the **ATEC(TM)** system in several biopsy procedures. Physicians prefer the **ATEC(TM)**, she said, because it has advantages over market competitors -- namely the volume of tissue that can be excised in a short amount of time. "It's the easiest of the hand-held vacuum assisted devices I've used -- a very clear improvement."

With more than 800,000 women undergoing invasive diagnostic procedures

for breast disease every year, **Suros** Board Chairman Jim Baumgardt said the **ATEC(TM)** device offers physicians and patients a welcome new choice in minimally invasive procedures. "If given a choice, I can't see why a patient wouldn't elect to have the **ATEC(TM)** used for their diagnostic procedure," said Baumgardt. "It just makes sense from all perspectives."

**Suros** Surgical Systems will feature the new **ATEC(TM)** breast biopsy and excision device during a satellite media tour and live on-line press conference on March 6 that can be accessed at the following sites: Generic Interview (consumers): [http://www.prnewswire.com/broadcast/5171\\_consumer.html](http://www.prnewswire.com/broadcast/5171_consumer.html) Generic Interview Satellite Coord.: [http://www.prnewswire.com/broadcast/5171/5171\\_press.html](http://www.prnewswire.com/broadcast/5171/5171_press.html) Press Conference Webcast: <http://www.videonewswire.com/event.asp?id=3645>

MAKE YOUR OPINION COUNT - Click Here <http://tbutton.prnewswire.com/prn/11690X48659218> [http://www.prnewswire.com/broadcast/5171\\_consumer.html](http://www.prnewswire.com/broadcast/5171_consumer.html) [http://www.prnewswire.com/broadcast/5171/5171\\_press.html](http://www.prnewswire.com/broadcast/5171/5171_press.html) <http://www.videonewswire.com/event.asp?id=3645> **Suros** Surgical Systems, Inc.

Contact: Sue Hetzler of **Suros** Surgical Systems, Inc.,  
+1-317-635-3185, ext. 105, or [info@surossurgical.com](mailto:info@surossurgical.com)  
Website: <http://www.surosurgical.com/>

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COMPANY NAMES: Food & Drug Administration USA

DESCRIPTORS: Health & Healthcare; General News; Company News;  
Regulation of Business

COUNTRY NAMES/CODES: United States of America (US)

REGIONS: Americas; North America; Pacific Rim

PROVINCE/STATE: Indiana

20/9/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.  
013967049 \*\*Image available\*\*  
WPI Acc No: 2001-451263/200148  
XRPX Acc No: N01-334159

**Magnetic resonance** imaging apparatus for medical diagnostic measurements, includes loud speaker and microphone in carrier for communicating data between outside world and **patient** and outlet opening for **cool** air.

Patent Assignee: KONINK PHILIPS ELECTRONICS NV (PHIG )

Inventor: KISTEMAKER F M; VRIJHEID J E W

Number of Countries: 019 Number of Patents: 001

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200122108	A1	20010329	WO 2000EP8971	A	20000913	200148 B

**Priority Applications (No Type Date): EP 99203123 A 19990923**

Abstract (Basic): WO 200122108 A1

NOVELTY - The transparent material made arc-shaped carrier (33) is mounted on the patient table (31) at the area of the head of the patient. The communication unit in the carrier enables communication between the outside world and the patient on the table and the **cooling** unit (37) enhances the **patient's comfort**.

DETAILED DESCRIPTION - The communication unit comprises a loud speaker (35), an outlet opening (37) for cool air, an illumination system (39), a microphone (41), a series of lamps (43) for illumination, a camera (45) and a mirror (47).

USE - For medical diagnostic measurements.

ADVANTAGE - The communication unit enables communication between the patient arranged in the table in the tunnel shaped space and the outside world efficiently. The patients's comfort is enhanced by providing outlet opening for cooling air, microphone and series of lamps for illumination.

DESCRIPTION OF DRAWING(S) - The figure shows the patient table provided with communication unit.

Patient table (31)

Arc-shaped carrier (33)

Loud speaker (35)

Outlet opening (37)

Illumination system (39)

Microphone (41)

Lamp (43)

Camera (45)

Mirror (47)

pp; 10 DwgNo 2/2

NA TAF 6/29/2001

28/9/4

DIALOG(R) File 20:Dialog Global Reporter  
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08437038 (THIS IS THE FULLTEXT)

**Toshiba Unveils MRI Scanner as the Industry's Quietest System Addresses Patient Concerns About Noise and Claustrophobia**

BUSINESS WIRE

November 29, 1999

JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 800

CHICAGO--(BW HealthWire)--Nov. 29, 1999--Healthcare professionals attending the annual conference of the Radiological Society of North America (RSNA) were among the first to view (and hear) the quietest magnetic resonance imaging (MRI) system in the world.

Toshiba America Medical Systems (TAMS) unveiled EXCELART(TM), the company's 1.5-tesla MRI scanner.

EXCELART is designed specifically to address patient comfort needs. The system features a short-bore design with the widest opening in the industry -- at 655 mm -- to achieve a greater feeling of openness and reduce the uncomfortable sensation and anxiety associated with being enclosed.

Additionally, the system employs Toshiba's latest state-of-the-art technology, Pianissimo(TM) (works-in-progress), which is named after the musical term for "play very softly." Pianissimo reduces examination noise by as much as 90 percent, making EXCELART the industry's quietest, closed MRI system.

"Today, patients are becoming savvy consumers of healthcare. They research healthcare options, make informed choices and are often willing to shop around for a patient-focused experience," said Scott Eaton, director, MRI Business Unit, Toshiba America Medical Systems.

"Recognizing the impact of this growing consumerism on healthcare, Toshiba conducted extensive research to determine what elements of an MRI procedure were most distressing to patients. In addition to feelings of claustrophobia, the issue of gradient noise was identified. As a result, EXCELART was built from the ground up to appeal to patient demands for comfortable, quiet exams.

"It also meets clinical demands for advanced applications, as well as ultra-fast scans and better access to the patient."

**Pianissimo -- The Quiet Advantage**

As MRI scans have become faster and applications more sophisticated, exam noise experienced by the patient has approached the level of a jet engine at landing and take off. This causes some distressed patients to have to be removed from the magnet. This problem also leads to other measures such as patient sedation, imaging on other modalities or a complete failure to obtain a scan.

In developing the EXCELART, Toshiba redesigned the basic foundation of MR imaging to deliver advanced scan techniques while reducing acoustic noise to almost one-tenth of the original volume.

To deliver the highest level of sound suppression, the Pianissimo technology employs a solid foundation for gradient support and special insulators to reduce the acoustic noise from the vibration of the gradient coil. Noise is further reduced through a unique gradient vacuum vessel and independent support direct from the ground which shields against air vibration.

"With Pianissimo, patients hear sounds at the volume of gentle drumming instead of the jackhammer noise-level of older technologies," explained Eaton. "This softer volume reduces patient anxiety and increases the chances for a successful scan and better department productivity."

**A New Breed of Clinical Applications**

Built from the ground up, the EXCELART is optimized for advanced imaging techniques to perform studies such as MR angiography (MRA), as well as abdominal, liver and spine imaging.

EXCELART features Toshiba's SuperFASE (works-in-progress), a very short echo spacing half fourier RF refocused sequence, for imaging vascular

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structures in the abdomen and chest. With this technique, MRA images of venous and arterial vessels can be simultaneously visualized without the use of contrast agents. This improves patient comfort, reduces costs and enables the scan to be performed more efficiently.

Similarly, EXCELART supports a new era of neurological imaging with Single Shot Echo Planar Imaging for Diffusion Weighted Imaging and Perfusion Weighted Imaging (works-in-progress) used in stroke detection.

With headquarters in Tustin, Calif., Toshiba America Medical Systems is a subsidiary of Toshiba America Inc., which employs 10,000 throughout the United States. TAMS markets, sells, distributes and services diagnostic imaging (DI) systems and coordinates clinical DI research.

Toshiba's imaging products include CT, MRI, nuclear medicine, ultrasound and both conventional and vascular X-ray systems. Toshiba America MRI Inc., in South San Francisco, has responsibility for research and development, engineering and manufacturing of diagnostic imaging equipment in the United States.

Toshiba America Medical Systems' parent company is Toshiba Corp., a major provider of electronics and energy systems and products -- a \$43 billion organization with more than 198,000 employees worldwide.

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